

1. A lay-in electrical connector for removably mounting to a stud of an electrical transformer, comprising:

a body member having a plurality of dividing walls defining a plurality of conductor-receiving channels each capable of receiving a conductor;

5 a plurality of cap members each removably engaged with a corresponding one of said plurality of conductor-receiving channels, each of said cap members having a binding screw capable of being tightened to capture the conductor in the corresponding one of said plurality of conductor-receiving channels; and

10 a first bore in said body member adapted to releasably couple with the stud of the electrical transformer.

2. The electrical connector of claim 1 wherein said body member has a first end and a second section, said first end including said first bore, said second section including said plurality of dividing walls.

3. The electrical connector of claim 1 wherein each of said plurality of cap members includes an opposed pair of side edges and a pair of side flanges each extending outwardly from one of said pair of side edges, and said adjacent ones of said dividing walls include confronting channels each
5 configured to receive a corresponding one of said side flanges.

4. The electrical connector of claim 3 wherein each confronting channel includes a downwardly-facing cam surface angled with a downward inclination angle, and each side flange includes an upwardly-facing cam surface inclined with an upward inclination angle complementary to said
5 downward inclination angle of a corresponding one of said cam surfaces of said confronting channels.

5. The electrical connector of claim 4 wherein each said upwardly-facing cam surface of said side flanges engages a corresponding one of said downwardly-facing cam surfaces of said confronting channels as said binding screw is tightened so as to restrict movement of each of said plurality of cap
5 members relative to the corresponding one of said plurality of conductor-receiving channels.

6. The electrical connector of claim 1 wherein the transformer stud is threaded, said first bore is threaded and said first bore threadingly engages the transformer stud.
 7. The electrical connector of claim 1 wherein said first bore slides over the transformer stud with a frictional fit.
 8. The electrical connector of claim 1 wherein said body member further comprises a binding screw capable of being tightened to inhibit withdrawal of the transformer stud from said first bore.
 9. The electrical connector of claim 1 wherein said plurality of conductor-receiving channels are arranged in first and second rows, said channels in said first row of conductor-receiving channels superimposed above said channels in said second row of conductor-receiving channels.
 10. The electrical connector of claim 1 wherein said plurality of conductor-receiving channels are arranged in first and second rows, said channels in said first row of conductor-receiving channels open in a first direction, said channels in said second row of conductor-receiving channels open in a second direction opposite to said first direction.
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11. The electrical connector of claim 1 wherein said first bore extends in a first direction, said plurality of conductor-receiving channels extend in a second direction, said first direction being substantially perpendicular to said second direction.

12. The electrical connector of claim 1 further comprising a second bore in said body member adapted to engage a stud of an electrical transformer.

13. The electrical connector of claim 12 wherein said second bore has a diameter different from said first bore.

14. The electrical connector of claim 12 wherein said body member further comprises a binding screw capable of being tightened to inhibit withdrawal of the transformer stud from said second bore.

15. The electrical connector of claim 1 wherein said body member further comprises a plurality of conductor-receiving bores each capable of receiving a conductor having a smaller diameter than the conductor received in said plurality of conductor-receiving channels.

16. The electrical connector of claim 15 wherein said body member further comprises a plurality of binding screws each associated with a corresponding one of said conductor-receiving bores capable of being tightened to capture the conductor in said conductor-receiving bore.

17. The electrical connector of claim 1 wherein said body member comprises:

a first portion carrying said first bore; and

a second portion carrying said plurality of conductor-receiving
5 channels, said second portion removably coupled to said first portion.

18. The electrical connector of claim 17 wherein said first portion has a bottom surface, said second portion has a top surface, said top surface engaging said bottom surface when said second portion is removably coupled to said first portion such that said first bore is above said plurality of conductor-
5 receiving channels.

19. A power distribution system comprising a transformer having a secondary side, at least one transformer stud electrically coupled to said secondary side and at least one electrical connector according to claim 1 mounted to the at least one transformer stud.